

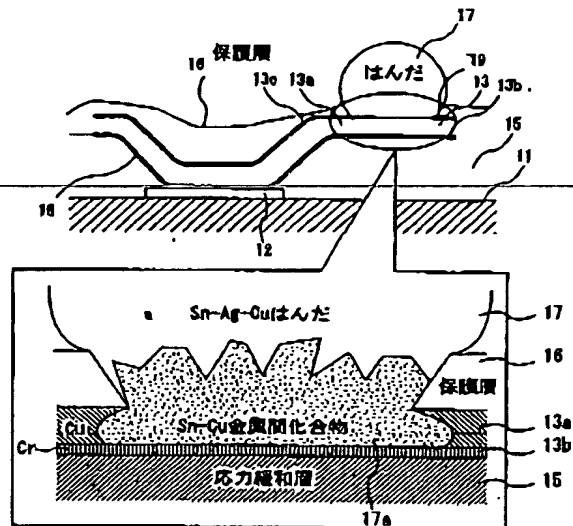
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(51) 国際特許分類7 H01L 23/12, 23/15, H05K 3/34	A1	(11) 国際公開番号 WO00/52755  (43) 国際公開日 2000年9月8日(08.09.00)
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(54) Title: WIRING BOARD AND ITS PRODUCTION METHOD, SEMICONDUCTOR DEVICE AND ITS PRODUCTION METHOD, AND ELECTRONIC APPARATUS (54) 発明の名称 配線基板およびその製造方法、半導体装置およびその製造方法並びに電子機器 (57) Abstract A high-density wiring board having a high connection reliability and produced at low cost. The wiring board is characterized by comprising a board having an electrode and covered with an insulating layer in which a hole is made so as to expose the electrode, a wiring connected to the electrode and formed of a layer adhering to the insulating layer and made of Cr or Ti and a layer adhering to the Cr or Ti layer and made of Cu, a protective film covering the wiring and having therein a hole for soldering, and solder for external connection formed in the hole by diffusion-alloying the Cu layer and reaching the Cr or Ti layer for establishing connection.		



- 16...PROTECTIVE LAYER  
 17...SOLDER  
 a...Sn-Ag-Cu SOLDER  
 17a...Sn-Cu INTERMETALLIC COMPOUND  
 15...STRESS RELAXATION LAYER

(81 系 1)



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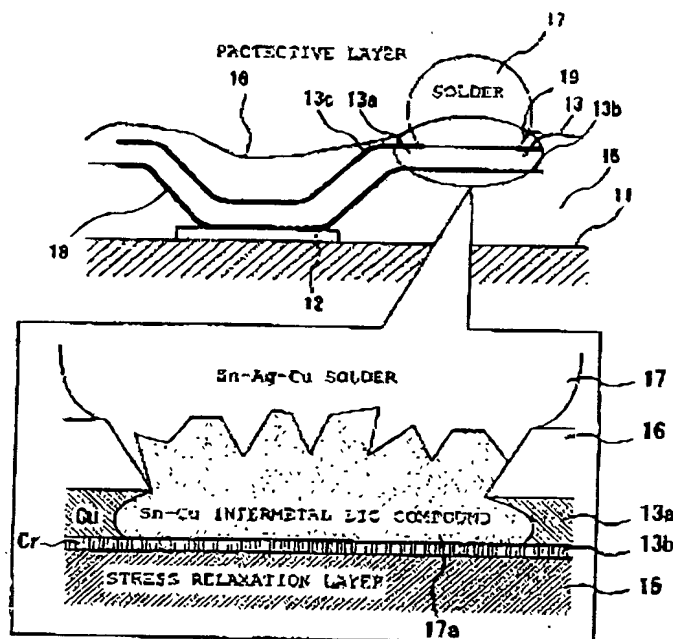
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WO0052755

**WIRING BOARD AND ITS PRODUCTION METHOD, SEMICONDUCTOR DEVICE AND ITS PRODUCTION METHOD, AND ELECTRONIC APPARATUS**  
HITACHI, LTD.

Inventor(s): NARIZUKA, Yasumori ; ITOU, Mitsuko ; YAMAGUCHI, Yoshihide ; TENMEI, Hiroyuki  
Application No. JP0000695 JP, Filed 20000209, A1 Published 20000908

**Abstract:** A high-density wiring board having a high connection reliability and produced at low cost. The wiring board is characterized by comprising a board having an electrode and covered with an insulating layer in which a hole is made so as to expose the electrode, a wiring connected to the electrode and formed of a layer adhering to the insulating layer and made of Cr or Ti and a layer adhering to the Cr or Ti layer and made of Cu, a protective film covering the wiring and having therein a hole for soldering, and solder for external connection formed in the hole by diffusion-alloying the Cu layer and reaching the Cr or Ti layer for establishing

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connection.

Int'l Class: H01L02312; H01L02315 H05K00334

Priority: JP 11/49450 19990226

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